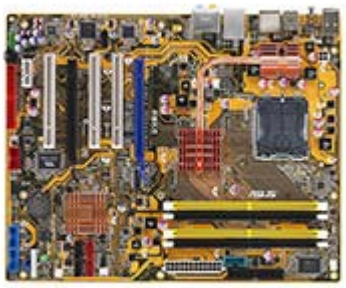

P5KR

ASUS Super Memspeed Technology Enhances Memory Speed up to 71%

- Support Intel® next generation 45nm Multi-core CPU
- Intel LGA775 Platform
- Intel® P35 chipset
- Intel® Core™2 Quad / Core™2 Extreme / Core™2 Duo / Pentium® Extreme / Pentium® D / Pentium® 4 Processors
- Dual-channel DDR2 1066/800/667 MHz
- Heat Pipe
- 5xSATA/SATA on the Go/ 2x1394
- 12xUSB
- All High-quality Conductive Polymer Capacitors

ASUS Super Memspeed Technology Enhances Memory Speed up to 71%

LGA775 Intel® 45nm Processor Ready

This motherboard supports the latest Intel 45nm CPU which introduces new micro-architecture features for greater performance at a given frequency, up to 50% larger L2 caches, and expanded power management capabilities for new levels of energy efficiency.

LGA775 Intel® Core™2 Processor Ready

This motherboard supports the latest Intel® Core™2 processors in LGA775 package. It also can support Intel® next generation 45nm Multi-Core CPU. With new Intel® Core™ microarchitecture technology and 1333 / 1066 / 800 MHz FSB, Intel® Core™2 processor is one of the most powerful and energy efficient CPU in the world.

Intel® P35 Chipset

The Intel® P35 Express Chipset is the latest chipset designed to support the next generation 45nm CPU; and up to 8GB of dual-channel DDR2 800/667 MHz memory architecture. It also supports 1600/1333/1066/800 FSB (Front Side Bus), PCI Express x16 graphics and multi-core CPUs.

*ASUS unleashes the chipset capabilities to fully support FSB1600.

Native DDR2 1066 Support

To attain top performance, ASUS engineers have successfully unleashed the true potential of DDR2 memory. While in DDR2 1066 mode, ASUS´s exclusive technology offers a choice of FSB 1333 - providing great performance for 3D graphics and other memory demanding applications.

ASUS Super Memspeed Technology

Surpass the Limit with Easy Overclocking Automatically

To attain top performance, ASUS has managed to break through current FSB and DRAM ratio proportions by utilizing Super Memspeed Technology - the latest technology that provides even more precise overclocking options to unleash the true potential of DDR2 memory. Native DDR2 1066 maximizes system performance by eliminating the bottleneck when overclocking both the CPU and memory - providing great performance for 3D graphics and other memory demanding applications.

Test configuration
Motherboard: P5K
CPU : Intel Core 2 Duo E6850
DRAM : GeIL PC2-6400 DDR2-800, GX21GB6400PDC
VGA: ASUS EN6800
Cooler : ASUS Silent Square Pro
HDD: HITACHI HDS728080PLA380, 80G
OS: WIndows XP SP2
Test capture: **Click here**

ATI CrossFire Technology

ATI´s CrossFire boosts image quality along with rendering speed, eliminating the need to scale down screen resolutions to get the high image quality you want. CrossFire ignites with the higher antialiasing, anisotropic filtering, shading, and texture settings you desire. Adjust your display configurations, experiment with your advanced 3D settings, and check the effect with a real-time 3D-rendered preview within ATI´s Catalyst™ Control Center to rule your CrossFire system.

Dual RAID

The Intel ICH9R chipsets incorporate Six Serial ATA connectors with high performance RAID functions in RAID 0, 1, 5, 10 and JBOD. The JMicron controller provides another two Serial ATA connectors for RAID 0, 1, and JBOD functions. This motherboard is the ideal solution to enhance hard disk performance and data back up protection without the cost of add-on cards.

Save 50% CPU Power - AI Gear 2

Power Savings for Environment-Friendly Computing
AI Gear2 allows users to choose profiles to adjust CPU frequency and vCore voltage to minimize system noise and power consumption. For example, users can change the mode in real-time in the operating system to max power saving mode and can up to 50% power for the CPU when using word processing applications.

Fanless Design - Heat Pipe

Zero failure
Support side-flow fan or passive cooler
The Heat Pipe design effectively directs the heat generated by the chipsets to the heatsink near the back IO ports, where it can be carried away by existing airflow from CPU fan or bundled optional fan. The purpose of the innovative heat pipe design on this motherboard is that the groundbreaking fanless design does not have lifetime problems as a chipset fan does. Furthermore, it provides options for users to install side-flow fan or passive cooler. The Heat Pipe design is the most reliable fanless thermal solution to date.

Q-Fan 2

Adjusts both CPU fan and chassis fan speeds according to system loading
ASUS Q-Fan2 technology intelligently adjusts both CPU fan and chassis fan speeds according to system loading to ensure quiet, cool and efficient operation.

AI Slot Detector

Assists in Proper Installation for PCIe/PCI Devices
When PCIe/PCI devices are installed, users can simply plug in the power cable and find out if these devices are successfully installed. Without even switching on the PC or entering the operating system, ASUS´s innovative on-board LEDs provide an efficient way to identify the correct way to set up the PC.

SATA on the Go

This motherboard supports the next-generation hard drives based on the Serial ATA (SATA) 3Gb/s storage

specification, delivering enhanced scalability and doubling the bus bandwidth for high-speed data retrieval and saves. The external SATA port located at the back I/O provides smart setup and hot-plug functions. Easily backup photos, videos and other entertainment contents on external devices.

IEEE 1394a interface

IEEE 1394a interface provides high speed digital interface for audio/video appliances such as digital television, digital video camcorders, storage peripherals & other PC portable devices.

High Definition Audio

Enjoy high-end sound system on your PC! The onboard 8-channel HD audio (High Definition Audio, previously codenamed Azalia) CODEC enables high-quality 192KHz/24-bit audio output, jack-sensing feature, retasking functions and multi-streaming technology that simultaneously sends different audio streams to different destinations. You can now talk to your partners on the headphone while playing a multi-channel network games. All of these are done on one computer.

AI Nap

Minimize noise and power consumption when temporarily away

With AI Nap, users can instantly snooze your PC without terminating the tasks. System will continue operating at minimum power and noise when user is temporarily away. It keeps downloading files or running applications in quietest state while you´re sleeping. Simply click keyboard or mouse, you can swiftly wake up the system in few seconds.

Q-Connector

Make connection quick and accurate!

The ASUS Q-Connector allows you to connect or disconnect chassis front panel cables in one easy step with one complete module. This unique adapter eliminates the trouble of plugging in one cable at a time, making connection quick and accurate.

O.C. Profile

Conveniently store or load multiple BIOS settings

Freely share and distribute favorite overclocking settings

The motherboard features the ASUS O.C. Profile that allows users to conveniently store or load multiple BIOS settings. The BIOS settings can be stored in the CMOS or a separate file, giving users freedom to share and distribute their favorite overclocking settings.

CrashFree BIOS 3

Simply restore corrupted BIOS data from USB flash disk

The ASUS CrashFree BIOS 3 allows users to restore corrupted BIOS data from a USB flash disk containing the BIOS file. This utility saves users the cost and hassle of buying a replacement BIOS chip.

EZ Flash 2

Simply update BIOS from a USB flash disk before entering the OS

EZ Flash 2 is a user-friendly BIOS update utility. Simply launch this tool and update BIOS from a USB flash disk before entering the OS. You can update your BIOS only in a few clicks without preparing an additional floppy diskette or using an OS-based flash utility.

AI NOS™

Boost performance when you need it the most!

Applications such as 3D games and video editing demand a huge chunk of system resource. Inject "nitrous oxide" into your CPU! The patented AI NOS™ (Non-delay Overclocking System) technology intelligently detects system load and automatically boosts performance for the most demanding tasks. Unlike other dynamic overclocking techniques, AI NOS™ reacts much faster to satisfy your unending need for speeds .

Precision Tweaker

Achieve system maximum performance!

It offers ways to raise system performance inch-by-inch and step-by-step to achieve maximum performance! This is about getting the most out of your machine and taking pride in your customized computer.

vDIMM

- Take control of how much power is going into the memory modules. This motherboard gives you 13-step voltage control to the DIMM.

vCore

- Find out "exactly" how much power your CPU needs. Fine-tune it with 0.0125 volts at a time!

SFS (Stepless Frequency Selection) allows

- FSB tuning from 200MHz up to 800MHz at 1MHz increment
- Memory tuning from 667MHz up to 1333MHz at 1MHz increment
- PCI Express frequency tuning from 100MHz up to 150MHz at 1MHz increment

C.P.R. (CPU Parameter Recall)

Protect your BIOS data when overclocking.

When the system hangs due to overclocking failure, there is no need to open the case to clear CMOS data. Just simply restart the system, the BIOS would show the previous setting and then users can amend the CPU setting again.

Noise Filter

Eliminate background noise while recording

This feature detects repetitive and stationary noises like computer fans, air conditioners, and other background noises then eliminates it in the incoming audio stream while recording.

MyLogo3

The ASUS MyLogo3 is the new feature present in the motherboard that allows you to personalize and add style to your system with customizable and animated boot logos.

S/PDIF-out on Back I/O Port

This motherboard provides convenient connectivity to external home theater audio systems via coaxial and optical S/PDIF-out (SONY-PHILIPS Digital Interface) jacks. It allows to transfer digital audio without converting to analog format and keeps the best signal quality.

Uses 100% All High-quality Conductive Polymer Capacitors!

This motherboard uses all high-quality conductive polymer capacitors onboard for durability, improved lifespan, and enhanced thermal capacity.

ASUS two-slot thermal design (ASUS exclusive)

ASUS exclusive two-slot thermal design

ASUS two-slot thermal design provides better air-flow and lower VGA cards temperature than other brans´ one-slot design, which also ensures better system stability and longer component life cycle.

GreenASUS

The motherboard and its packaging comply with the European Union´s Restriction on the use of Hazardous Substances (RoHS). This is in line with the ASUS vision of creating environment-friendly and recyclable products and packaging to safeguard consumers´ health while minimizing the impact on the environment.

The product (electrical , electronic equipment, Mercury-containing button cell battery) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

Specification

CPU	Intel Socket 775 Core™2 Quad/Core™2 Extreme/Core™2 Duo/Pentium® Extreme/Pentium® D/Pentium® 4 Processors Compatible with Intel® 05B/05A/06 processors Support Intel® next generation 45nm CPU *This motherboard supports FSB 1600/1333/1066/800
Chipset	Intel P35 Intel ICH9R Intel Fast Memory Access Technology
Front Side Bus	1600/1333/1066/800 MHz
Memory	4 x DIMM, Max. 8 GB, DDR 1066*/800/667 Non-ECC,Un-buffered Memory Dual Channel memory architecture * The chipset officially supports the memory frequency up to DDR2 800MHz. Tuned by ASUS Super Memspeed Technology, this motherboard natively supports up to DDR2 1066MHz Please refer to www.asus.com or user manual for Memory QVL.
Expansion Slots	2 x PCIe x16 (blue @ x16 mode, black @ x4 or x1 mode) supports CrossFire Technology 1 x PCIe x1 3 x PCI
Storage	**Southbridge** 4 xSATA 3 Gb/s ports Intel Matrix Storage Technology Support RAID 0,1,5,10 **JMicron® JMB363 PATA and SATA controller** 1 xUltraDMA 133/100/66 for up to 2 PATA devices 1 xInternal SATA 3.0 Gb/s ports 1 xSATA 3.0 Gb/s ports (SATA On-the-Go) Support RAID 0,1,JBOD
LAN	PCIe Gigabit LAN controller featuring AI NET2
Audio	Realtek ALC 883 8 -Channel High-Definition Audio CODEC Coaxial / Optical S/PDIF out ports ASUS Noise Filter Support Jack-Sensing, Enumeration, Multi-streaming S/PDIF out on back I/O port
IEEE 1394	VIA VT6308P controller supports 2 x 1394a ports (one at midboard; one at back panel)
USB	12 USB 2.0 ports (6 ports at mid-board, 6ports at back panel)
ASUS AI Lifestyle Features	**ASUS Quiet Thermal Solution** - ASUS AI Gear 2 - ASUS AI Nap - ASUS Q-Fan 2 - ASUS Fanless Design: Heat-pipe solution **ASUS Crystal Sound** - ASUS Noise Filter **ASUS EZ DIY** - ASUS Q-Connector - ASUS O.C. Profile - ASUS CrashFree BIOS 3 - ASUS EZ Flash 2 - ASUS AI Slot Detector
Special Features	ASUS MyLogo 3
Overclocking Features	**Intelligent overclocking tools** - ASUS AI Booster Utility - ASUS AI NOS (Non-delay Overclocking System) **Precision Tweaker** - vDIMM: 16 -step DRAM voltage control - vCore: Adjustable CPU voltage at 0.0125V increment - vChipset 4-step voltage control **SFS (Stepless Frequency Selection)** - FSB tuning from 200MHz up to 800MHz at 1MHz increment

	- Memory tuning from 667MHz up to 1333MHz for DDR2 - PCI Express frequency tuning from 100MHz up to 150MHz at 1MHz increment **Overclocking Protection** - ASUS C.P.R.(CPU Parameter Recall)
Back Panel I/O Ports	1 x PS/2 Keyboard 1 x External SATA 1 x S/PDIF Out 1 x IEEE 1394a 1 x LAN(RJ45) port 6 x USB 2.0/1.1 8 -Channel Audio I/O
Internal I/O Connectors	3 x USB connectors support additional 6 USB ports 1 x Floppy disk drive connector 1 x IDE connector 5 x SATA connectors 1 x IEEE 1394a connector 1 x CPU Fan connector 2 x Chassis Fan connector 1 x Power Fan connector 1 x S/PDIF Out connector 1 x4-pin ATX 12V Power connector 24 -pin ATX Power connector Front panel audio connector COM connector Chassis Intrusion connector CD/AUX audio in System Panel(Q-Connector)
BIOS	8 Mb Flash ROM DMI 2.0 AMI BIOS PnP WfM 2.0 SM BIOS 2.3 ACPI 2.0a ASUS EZ Flash 2 ASUS CrashFree BIOS 3
Manageability	WfM 2.0,DMI 2.0,WOL by PME,WOR by PME,PXE
O/S Compatibility	Windows Vista Windows XP
Accessories	UltraDMA 133/100/66 cable FDD cable 4x Serial ATA cables 1 x 2-port Serial ATA power cable I/O Shield User's manual 3 in 1 Q-connector
Support Disc	Drivers ASUS PC Probe II ASUS AI Suite Anti-virus software (OEM version) ASUS Update
Form Factor	ATX Form Factor 12 inch x 9.6 inch (30.5 cm x 24.4 cm)

The product (electrical , electronic equipment, Mercury-containing button cell battery) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

* All specifications are subject to change without notice. Please check with your supplier for exact offers. Products may not be available in all markets.
* PCB color and bundled software versions are subject to change without notice.
* Brand and product names mentioned are trademarks of their respective companies.